



## 特許協力条約に基づいて公開された国際出願

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(21) 国際出願番号 PCT/JP00/01949  (22) 国際出願日 2000年3月29日(29.03.00)  (30) 優先権データ 特願平11/91644 1999年3月31日(31.03.99) JP  (71) 出願人 (米国を除くすべての指定国について) 出光石油化学株式会社 (IDEMITSU PETROCHEMICAL CO., LTD.)[JP/JP] 〒108-0014 東京都港区芝五丁目6番1号 Tokyo, (JP) 本田技研工業株式会社 (HONDA GIKEN KOGYO KABUSHIKI KAISHA)[JP/JP] 〒107-0062 東京都港区南青山二丁目1番1号 Tokyo, (JP)  (72) 発明者 ; および (75) 発明者 / 出願人 (米国についてのみ) 小林 豊(KOBAYASHI, Yutaka)[JP/JP] 田中謙次(TANAKA, Kenji)[JP/JP] 〒299-0107 千葉県市原市姉崎海岸1番地1 Chiba, (JP) 佐伯芳久(SAEKI, Yoshihisa)[JP/JP] 〒351-0113 埼玉県和光市中央一丁目4番1号 株式会社 本田技術研究所内 Saitama, (JP)	(74) 代理人 弁理士 大谷 保(OHTANI, Tamotsu) 〒105-0001 東京都港区虎ノ門3丁目8番27号 巴町アネックス2号館4階 Tokyo, (JP)  (81) 指定国 US, 欧州特許 (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE)  添付公開書類 国際調査報告書	
(54)Title: <u>PROPYLENE/ETHYLENE BLOCK COPOLYMER COMPOSITION FOR EXTERIOR AUTOMOTIVE PART</u>		
(54)発明の名称 自動車外装部品用プロピレンーエチレンブロックコポリマー系組成物		
(57) Abstract A propylene/ethylene block copolymer composition for exterior automotive parts which has undergone granulation wherein the sodium salt of acid methylenebis(2,4-di-t-butylphenol) phosphate is added as a nucleating agent in an amount of 300 to 2,000 ppm and which satisfies the following: (a) the melt flow rate is 10 to 18 g/10 min, (b) the ordinary-temperature xylene-insoluble components have a content regarding stereoregularity index of 98.9 % or higher, (c) the content of ordinary-temperature xylene-soluble components is 22 to 28 wt.%, and the copolymer contains a single T1 relaxation time component and satisfies the relationship $y \leq 0.0014x^3 - 0.0897x^2 - 1.0593x + 231.6$ wherein x is the ethylene content (wt.%) and y (msec) is the T1 relaxation time.		

## ABSTRACT OF THE DISCLOSURE

5 The present invention provides a propylene-ethylene block copolymer composition for automobile exterior parts having sufficient stiffness and mechanical strength required for the automobile exterior arts, which is produced at low cost since no additional steps for blending other rubber components are required in the production thereof. The composition contains methylenebis(2,4-di-t-butylphenol) acid sodium phosphate which is blended with the propylene-ethylene block copolymer in an amount of 300 to 2,000 ppm upon granulation thereof, and has (a) a melt flow rate of 10 to 18 g/10 min when measured at 230°C under a load of 2.16 kg (21.2N); (b) an ordinary temperature xylene insoluble having a stereoregularity index [mmmm] fraction of 98.9% or higher when measured by <sup>13</sup>C-NMR; and (c) an ordinary temperature xylene soluble characterized by: (c-1) having a content of 22 to 28% by weight; (c-2) comprising only a single component with respect to a relaxation time T1  
15 measured by pulse NMR; and (c-3) satisfying the following formula (I):

$$y \leq 0.0014x^3 - 0.0897x^2 - 1.0593x + 231.6 \quad (I)$$

wherein x is an ethylene content (% by weight) measured by <sup>13</sup>C-NMR and y is the relaxation time T1 (msec) measured by pulse NMR.